

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)						 																
	Inspection & Test Plan (ITP) <table border="1"> <tr> <td>پروژه</td> <td>بسته کاری</td> <td>صادر کننده</td> <td>تسهیلات</td> <td>رشته</td> <td>نوع مدرک</td> <td>سریال</td> <td>نسخه</td> </tr> <tr> <td>BK</td> <td>PPL</td> <td>BV</td> <td>320</td> <td>QC</td> <td>PR</td> <td>0001</td> <td>V01</td> </tr> </table>						پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	BK	PPL	BV	320	QC	PR	0001	V01	شماره صفحه ۱ از ۱۱
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شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴																							

طرح نگهداشت و افزایش تولید ۲۷ مخزن

INSPECTION & TEST PLAN (ITP)

نگهداشت و افزایش تولید میدان نفتی بینک

V01	Oct 2023	AFC	VISTA Co.	M.Fakharian	S.Faramarzpour	
V00	July 2023	IFA	VISTA Co.	M.Fakharian	A.M.Mohseni	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Status:

IFA: Issued for Approval

IFR: Issued for Review

IFI: Issued for Information

AFC: Approved for Construction

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)	  																
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP) <table border="1"> <tr> <td>نسخه</td> <td>سریال</td> <td>نوع مدرک</td> <td>رشته</td> <td>تسهیلات</td> <td>صادر کننده</td> <td>بسته کاری</td> <td>پروژه</td> </tr> <tr> <td>V01</td> <td>0001</td> <td>PR</td> <td>QC</td> <td>320</td> <td>BV</td> <td>PPL</td> <td>BK</td> </tr> </table>	نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه	V01	0001	PR	QC	320	BV	PPL	BK	شماره صفحه ۲: از ۱۱
نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه											
V01	0001	PR	QC	320	BV	PPL	BK											

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)							شماره صفحه: ۳ از ۱۱
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							
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1. INTRODUCTION

Binak oilfield in Bushehr province is a part of the southern oilfields of Iran, is located 20 km northwest of Genaveh city.

With the aim of increasing production of oil from Binak oilfield, an EPC/EPD Project has been defined by NIOC/NISOC and awarded to Petro Iran Development Company (PEDCO). Also, PEDCO (as General Contractor) has assigned the EPC-packages of the Project to "Hirgan Energy - Design and Inspection" JV.

GENERAL DEFINITION



The following terms shall be used in this document.

CLIENT:	National Iranian South Oilfields Company (NISOC)
PROJECT:	Binak Oilfield Development – Manufacturing (w/Engineering & Material Supply) of Pig traps
EPD/EPC CONTRACTOR (GC):	Petro Iran Development Company (PEDCO)
EPC CONTRACTOR/PURCAHSER:	Joint Venture of: HIRGAN Energy – Design & Inspection(D&I) Companies
VENDOR:	Nam Avaran Beh Koosh VISTA
EXECUTOR:	Executor is the party which carries out all or part of construction and/or commissioning for the project.
TPI:	Third Party Inspector
SHALL:	Is used where a provision is mandatory.
SHOULD:	Is used where a provision is advisory only.
WILL:	Is normally used in connection with the action by CLIENT rather than by an EPC/EPD CONTRACTOR, supplier or VENDOR.

HOLD POINT: (abbreviated: H)	Means that a hold shall be applied to the production schedule. The Client must be invited for the inspection / test and the inspection / test must be carried out with the named person in attendance. For drawings / documents: Vendor must receive approved drawings / documents, stamped by /Client.
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)							شماره صفحه: ۵ از ۱۱	
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	PPL	BV	320	QC	PR	0001	V01	

Review

(abbreviated R)

Means that documents shall be submitted after inspection for review as part of the Vendor data book.

Review & Approve

(abbreviated: R/A)

Means that documents shall be submitted after inspection for review & be approved as part of the Vendor data book.

Witness

(abbreviated: W)

Means that the TPI/Client requires notification of the inspection timing. However, if the Client is not present, Vendor will carry out the test and proceed with the work.

Spot Witness

(abbreviated: S.W)

Means random Inspection during visits.

Monitoring

(abbreviated: M)

Means that the Client requires monitoring during the Manufacturing of goods. However, if the work is performed as scheduled and if the Client is not present, Vendor will proceed with the work.

MOM

Minutes of meeting

PIM

Pre-Inspection Meeting

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							 شرکت تولید و ترابری گاز  نام ایران به کشور	
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)							شماره صفحه ۶: از ۱۱	
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
	BK	PPL	BV	320	QC	PR	0001	V01	

2. SCOPE

This document covers minimum necessary requirements for the inspect and control the quality of the 2 sets of Pig Launcher and Receiver Trap & final inspection to satisfy the quality of the execution process in accordance with the standard and Project Specification, And the use of the above document in the development project of Binak oil field.



3. NORMATIVE REFERENCES

3.1 Local Codes and Standards

- IPS-M-PI-130 (1) Material and Equipment Standard for Pig Launching and Receiving Traps
- IPS-G-ME-150 (1) Iranian Petroleum Standard – General Standard For Towers, Reactors, Pressure vessels & Internals
- S4L-6516 (REV. B) National Iranian Oil Company – Standard Drawing for Pipeline Pig Traps (for Intelligent Pig)
- IPS-E-IN-100 (2) Iranian Petroleum Standard – Engineering Standard for General Instrumentation
- IPS-E-TP-740 (1) Iranian Petroleum Standard – Engineering Standard for Corrosion Considerations in Material Selection
- IPS-G-GN-210 General standard for packing and packaging
- IPS-E-TP-100 (1) Engineering Standards for Paints
- IPS-C-TP-102 (1) Construction Standard for Painting

3.2 International Codes and Standards

- ASME Sec. VIII, div. 1 (2019)
- ASME B 31.4 (2022)
- ~~IPS-M-PI-130 (2002)~~
- ASME Sec. V (2021)
- ASTM (46th Edition)
- ASME Sec. II (2019)
- NACE MR 0175/ISO 15156 (2021)
- ISO 8501 (2020)

to be revised.



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)							 شرکت ترمیترو ایران  نام اوران به کوش
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	Inspection & Test Plan (ITP)							شماره صفحه ۷: از ۱۱
	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	
	BK	PPL	BV	320	QC	PR	0001	V01

3.3 The Project Documents

• BK-PPL-PEDCO-320-ME-MR-0001-D00	D00	PMR FOR PIG TRAPS
• BK-GNRAL-PEDCO-000-ME-DC-0001-D00	D00	Mechanical Design Criteria
• BK-PPL-PEDCO-320-ME-SP-0001-D02		Spec. for Pig Launching / Receiving Traps
• BK-PPL-PEDCO-320-ME-DT-0001-D00	D00	Data Sheets For Pig Traps
• BK-GNRAL-PEDCO-000-QC-PR-0015-D00		Specification for Welding Procedure
• BK-GNRAL-PEDCO-000-QC-PR-0045-D00		Packing, Marking, Transportation Procedure
• ICE-EID-MI-SP01-Rev.01		دستورالعمل بازرسی، خرید و ساخت کالا
• E&C-QC-SP-1-D01		دستورالعمل تامین قطعات یدکی راه اندازی و راهبری دو سالانه
• BK-GNRAL-PEDCO-000-PI-SP-0011-D00	D00	Specification of welding of plant piping system & NDT
• BK-GNRAL-PEDCO-000-PI-SP-0008-D00	D00	Specification for Material Requirements in Sour service
• BK-PPL-PEDCO-120-PI-SP-0001-D00	D00	Piping Material Specification (PMS)
• BK-GNRAL-PEDCO-000-PI-SP-0005-D02		Specification for Fittings, Flanges, Gaskets and Bolts
• BK-GNRAL-PEDCO-000-PI-SP-0006-D04		Specification for Painting
• BK-GNRAL-PEDCO-000-PI-SP-0001-D00	D00	Specification for color coding and marking
• BK-GNRAL-PEDCO-000-PI-SP-0017-D02	D02	Specification for Cleaning and Flushing
• BK-GNRAL-PEDCO-000-PL-SP-0015-D01		Specification for Pig
• BK-GNRAL-PEDCO-000-ME-DW-0002-D00	0002-D00	Standard Detail Drawing for Pressure Vessel & Heat Exchanger
	0001-D02	

3.4 Order of Precedence

In case of any conflict between the contents of this document or any discrepancy between this document and other project documents or reference standards, this issue must be reported to the CLIENT. The final decision in this situation will be made by CLIENT.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید توپک ران و توپک گیر بسته خطوط لوله
(قرارداد 01_0019-BK-HD-PPL-CO)



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

ITP FOR PIG TRAP

پروژه

BK

بسته کاری

PPL

صادر کننده

BV

تسهیلات

320

In Inspection Authority, all "RD" to be changed to "R".

شماره صفحه: ۸ از ۱۱

V01

4. ITP FOR PIG TRAP

No.	Description of Inspection and Test	Refrence Code/Standard / Specification	Acceptance Criteria	Confirmati on documents	Inspection Authority					Report	Remark
					VISTA	TPI	HIRGAN	PEDCO	NISOC		
Before Fabrication											
A1	PIM	Project Document	---	MOM	H	H	H	H	H	*	---
A2	Technical document and General drawing/Design	Project Document	Project Spec / Procedure	Approved Document	H	---	RA	RA	R	---	Note 1
Raw Material Inspection											
B1	Mill Test Certificate & Origin	MR / PMR / Project Spec / Data sheet	According to PMR & Project Spec & Standard	Mill Certificate EN 10204 3.1	H					RD	✓ Note3
B2	Material sampling & Lab test (if required)	MR / PMR / Project Spec / Data sheet	According to PMR & Project Spec & Standard	Lab Report	H	H	RD	RD	RD	✓	Note 4
B3	Dimension check and visual inspection	Data sheet & DWGs	DWGs & Data Sheet & MR	Inspection Report	H	H	RD	RD	RD	✓	---
B4	Consumable material inspection	MR / PMR / Project Spec / Data sheet	ASME BPVC Sec.II Part A & C / Standard	Certifications	H	RA	RD	RD	RD	✓	---
Welding Document											
C1	WPS & PQR	Project Spec / Procedure / MR	ASME Sec. IX & Reference STDs	WPS & PQR	H	RA	RD	RD	RD	✓	---

& NACE MR0175/ ISO 15156 & IPS-M-PL-130

ASME SEC IX

& Project Spec



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید توپک ران و توپک گیر بسته خطوط لوله
(قرارداد BK-HD-PPL-CO-0019_01)



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

ITP FOR PIG TRAP

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
V01	0001	PR	QC	320	BV	PPL	BK

شماره صفحه ۹: از ۱۱

No.	Description of Inspection and Test	Reference Code/Standard / Specification	Acceptance Criteria	Confirmation Documents	Inspection Authority					Report	Remark
					VISTA	TPI	HIRGAN	PEDCO	NISOC		
C2	Welder qualification test	Project Spec / Procedure / MR	ASME SEC. IX	Welder Certificate	H	RA	RD	RD	RD	✓	Certificate
C3	NDT operator certificate (Level II)	Project Spec / Procedure	ASME BPVC Sec.V & ASNT SNT-TC--1A	NDT Certificate	H	RD	RD	RD	RD	✓	Certificate
During Fabrication											
D1	Cutting & beveling	As per DWG	DWG	QC Report	H	SW	RD	RD	RD	✓	---
Opening	Fit up C.W. L	DWG	DWG	QC Report	H	SW	RD	RD	RD	✓	---
D3	Marking & operating of nozzle location	DWG	DWG	QC Report	H	SW	RD	RD	RD	✓	---
D4	Dimensional & visual check (fit up)	DWG	DWG	QC Report	H	SW	RD	RD	RD	✓	---
D5	Welding	WPS & PQR	WPS & PQR	QC Report	H	SW	RD	RD	RD	✓	---
D6	Dimensional & visual check	DWG	DWG	QC Report	H	W	RD	RD	RD	✓	---
D7	NDT befor PWHT (100% VT & RT)	Project Spec/MR	NDT Procedure	NDT Report	H	W	RD	RD	RD	✓	---
D8	PWHT	Project Spec / Procedure according NACE MR 0175/ ISO 15156	Heat Treatment (PWHT) Procedure	PWHT Report & Graph	H	W	W	W	W	✓	---

NDT Procedure/
NDT Map

PWHT Procedure



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید توپک ران و توپک گیر بسته خطوط لوله
(قرارداد BK-HD-PPL-CO-0019_01)



شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	ITP FOR PIG TRAP							شماره صفحه ۱۰ از ۱۱
	نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	
	V01	0001	PR	QC	320	BV	PPL	

No.	Description of Inspection and Test	Reference Code/Standard / Specification	Acceptance Criteria	Confirmati on documents	Inspection Authority					Report	Remark
					ISTA	TPI	HIRGAN	PEDCO	NISOC		
D9	Hardness test NDT Procedure & NDT Map	Project Spec / Procedure according NACE MR 0175/ ISO 15156	According NACE MR 0175 / ISO 15156	Hardness Report & IPS-M-PL-130	H	SW	RD	RD	RD	✓	Report
D10	NDT after PWHT (100% VT & PT or MT)	Project Spec/MR	NDT Procedure	NDT Report	H	W	RD	RD	RD	✓	---
D11	Final visual dimensional check	Approved DWG	Approved DWG	DT, VT report	H	H	RD	RD	RD	✓	---
D12	Hydrostatic test Closure Function Test Procedure	Project Spec / Hydrostatic Procedure according ASME BPVC Sec.VIII Div1	Hydrostatic Procedure according ASME BPVC Sec.VIII Div1	QC report & Calibration Certificate	H	H	H	H	H	✓	Report
D13	Closure functional test	Project Spec/MR	Closure functional test Procedure	QC Report / TPI Report	H	H	H	H	H	✓	---
D14	Check of surface preparation	Project Spec / MR / IPS-E-TP-100 & IPS-C-TP-102	Paint Procedure	QC Report / TPI Report	H	W	RD	RD	RD	✓	---

Surface Preparation and Painting Procedure

	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید توپک ران و توپک گیر بسته خطوط لوله (قرارداد BK-HD-PPL-CO-0019_01)								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	ITP FOR PIG TRAP								شماره صفحه ۱۱ از ۱۱
	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
	BK	PPL	BV	320	QC	PR	0001	V01	

No.	Description of Inspection and Test	Reference Code/Standard / Specification	Acceptance Criteria	Confirmati on documents	Inspection Authority					Report	Remark
					VISTA	TPI	HIRGAN	PEDCO	NISOC		
D15	Painting (Visual inspection of each layer, Ral check)	Project Spec / Paint Procedure	Paint Procedure	QC Paint Report / TPI Report	H	W	RD	RD	RD	✓	Report (Note2)
Surface Preparation and Painting Procedure Name Plate Drawing Packing List											
E1	Name Plate Check	Project Spec & drawing/Design	Project Spec & drawing/Design / Name Plate Drawing Document	QC Report / TPI Report	H	H	RD	RD	RD	✗	report is required
E2	Packing visual inspection	Project Spec / Packing Procedure	Packing Procedure	QC Report / TPI Report & Packing	H	H	RD	RD	RD	✓	---
E3	Final Inspection and Inspection Release note (IRN)	Final book	Approved Final book	IRN	H	H	RA	RA	RA	✓	---
E4	Issue Inspection Certificate (IC)	Project Spec & ITP & IRN	Approve Final book & IRN	IC	H	H	RA	RA	RA	✓	---
E5	Final book	Project Spec & ITP	Project Spec & ITP	FDB	H	RA	RA	RA	RA	✓	---

Note:

- 1- According to approved VPIS.
- 2- First layer inspection is a Hold point for TPI.
- 3- If Material Certificate is not original, then SSC test and laboratory report is required.

4- If material certificate is not original, then laboratory test is required. Required test shall be done in qualified laboratories in presence of TPI.